<u>REMARKS</u>

Status of the Claims

Claims 1-25 were in the application as originally filed. Claims 26 and 27 were added by amendment upon filing of a RCE. Claims 1-21 were subject to a restriction requirement and were withdrawn from this application.

Claims 22-27 were subject to the examination reflected in the present Office action, in which:

Claims 22-27 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent 6,079,020 to Liu (hereinafter, "Liu") in light of U.S. Patent Application Publication 2004/0107286 by Larson (hereinafter, "Larson").

Arguments in Support of the Patentability

<u>of Claims Remaining in the Application</u>

Claims 22-27 stand rejected under 35 U.S.C. § 103(a) as obvious over Liu in light of Larson. This rejection is respectfully traversed.

In rejecting claim 22, Examiner cites to Liu's:

> FIGs. 1 and 2 and Abstract as teaching the subject matter of the preamble,
>
> [210] as teaching the "receiving" step,
>
> col. 7, lines 8-67 as teaching the "multiplexing" step, and
>
> [240] as teaching the "modifying" step.

Examiner acknowledges that Liu does not explicitly show "providing network destination address information from a DNS server...." However, Examiner finds this "providing" step in "a method for establishing secure communication" in Larson's [0024], [0225], [0260-0268]. From these teachings of Larson, and further in view of Larson's Abstract, Examiner concludes that it would have been obvious to a person of ordinary skill in the art to modify Liu by including the step of "providing network destination address information from a DNS server...." Specifically, it is said by Examiner that "one of ordinary skill in the art at the time of the invention would have been motivated in order to automatically create of [*sic.*] a VPN in response to a DNS server look-up function, citing more particularly to Larson's [261].

Initially, it is respectfully submitted that Examiner's characterization of Liu is in error and the reading of Liu on claim 22 is a misapplication of the purpose and teachings of Liu. In this regard, it is important to emphasize that the language of claim 22 expressly includes the language "a method practiced <u>at a network interface unit (NIU) directly connected to at least one local area network (LAN)</u>...." [Emphasis added.]

Examiner applies FIGs. 1 and 2, and the Abstract of Liu to the preamble of claim 22. Examiner's cite to 210 in FIG. 2 as corresponding to applicant's "receiving data packetes from at least one device on said LAN" makes it clear that <u>Examiner's rejection of claim 22 regards Liu's VPN gateways, such as 115, 125, or 135 to function as applicants' NIU</u> (102, 202 or 302, for example). But Liu's VPN gateways and their relationship to VPN Management Station 160 shown in FIG. 1 present structure and functioning that is fundamentally distinct from that disclosed and claimed with respect to applicants' NIU.

Liu's VPN Management Station 160 is an attempt to avoid manual configuring of a plurality of VPN gateways to avoid potential errors and allow remote updating. See, for example, Liu at col. 2, line 52 through col. 3, line 21.

In particular, Liu's teachings provide that a command specifiying a network operation received at VPN management station 160 for translation into configuration information for delivery to VPN gateways affected by the command. (Liu, col 3, lines 8-14.) *VPN groups* are established in the Liu system and VPN processing is performed and packets delivered when it is determined that source and destinations are members of the same VPN group. (Liu, FIG. 2, 220,240 and 250.)

Configuration Parameters, as defined in Liu at col. 4, lines 48-50, are "parameters sent to a VPN gateway to configure the VPN gateway to appropriately handle communications between members of VPNs." Importantly, configuration parameters delivered to gateways include specific groups of addresses between which communications are to be transmitted securely. In a variation on this embodiment, the configuration parameters include Internet Protocol (IP) addresses. Thus, address information is provided to gateways to *define VPN groups* and to *individual IP addresses*. (Liu, col. 3, lines 39-43.) Further illustration of the management of network addresses

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and the express provision of them to particular gateways is provided by FIGs. 8-10 and the discussion thereof at col. 10, line 7 through col. 11, line 9.

From Liu's description of VPN management station 160 and its relationship to the respective VPN gateways (and their VPN groups and addresses), it is clear that Liu's VPN management station 160 provides an overall control function for the VPN gateways. This control is directed in large part by the delivery by VPN management station 160 of address definitions of VPN groups and the individual IP addresses of source and destinations for VPN paths. That is, processing in accordance with Liu's FIG. 2 of received packets at Liu's VPN gateways does not include "providing network destination address information from a Domain Name System server for at least selected ones of said data streams."

Importantly, if DNS functionality were to be included in Liu's VPN gateways (identified in the rejection with applicants NIU), it would defeat the goal of Liu to provide a central control at the VPN management station 160 that forms a core of Liu's approach. So, not only does Liu not show or suggest "providing network destination address information from a Domain Name System server for at least selected ones of said data streams" at his VPN gateways, use of such DNS functionality at VPN gateways would be counter to Liu's approach of providing VPN gateway information from a central source.

In contradistinction, the invention defined in applicants' present claim 22, recites NIU functions including "providing network destination address information from a Domain Name System server for at least selected ones of said data streams." This is inconsistent with Liu's use of explicit IP addresses and VPN groups defined by addresses delivered as configuration parameters by Liu's centralized VPN management station 160.

Thus, Examiner's cite to Liu's step 250 in FIG. 2 is inapposite. Liu does not perform the step of applicants claim 22: "providing network destination address information from a Domain Name System server for at least selected ones of said data streams." Instead, Liu relies on the explicit download of addresses from his VPN management station 160 to individual VPN gateways.

It should be understood that the DNS function recited in claim 22 is not consistent with the operation of Liu's system. That is because explicit address information is

downloaded in the form of IP addresses and ranges no DNS function need be performed in Liu. Applicants' NIU performs "providing network destination address information from a DNS server," thus permitting resolution of address information <u>in applicants'</u> <u>NIU</u>. In particular, applicants' DNS function is described, for example, in the specification at page 15, line 30 through page 16, line 1, where it is noted that applicants' "DNS server 415 provides network address resolution for destinations *specified in other formats*, and substitutes for access to network-based DNS servers commonly used for non-secure networking applications." [Emphasis added.]

The providing of destination address information in the manner recited in applicants' claim 22 confers advantages to applicants' embodiments in the form of increased flexibility and mobility. That is, reliance on Liu's rigid address format, updating from a central VPN management station 160 and rigid adherence to *VPN groups* need not be observed in applicants' claimed invention. This is especially important in applications of the present inventive methods where a user is required to move from one location to another as discussed, for example, in the specification at page 23, line 28 through page 24, line 5 where it is noted that

> Thus, for example, a traveling business person will efficiently and simply access a corporate headquarters LAN over the Internet by connecting through a network interface unit supporting a variety of client devices including one a laptop computer, web-enabled cell phone, personal digital assistant and a variety of peripheral devices. Such connections will be made from corporate branch offices, customer offices, supplier offices, hotel rooms and, via wireless links, from virtually anywhere. Such connections will be available over dial-up, cable, DSL, private line, wireless and other types of links, <u>the configuration information</u> <u>for which will be automatically derived using present inventive teachings</u>. (Emphasis added.)

Because it would serve no useful function and would defeat the goal of central configuration of VPNs using a VPN management station, Liu provides no suggestion of "providing network destination address information from a Domain Name System server for at least selected ones of said data streams" <u>at a NIU</u>. Therefore, one skilled in the art would not look to sources such as Larson to modify the teachings of Liu to include such

DNS functionality at an NIU. Moreover, the DNS functionality shown in the cited portions of Larson is not performed at a NIU. Moreover, it appears from Larson's [0260-0280] and associated FIG. 26 that Larson's approach employs a DNS server 2609 and DNS proxy server 2610 communicating through a gatekeeper 2603, none of which practice applicants' method of claim 22. None of these elements in Larson practice the claimed method steps at a NIU.

No suggestion has been identified by Examiner that Larson performs his DNS functioning at a NIU or that Larson (or Liu) contemplate use of a NIU having the functionality described in claim 22. There is simply no basis for importing a technique from a non-existent NIU in Larson into a non-existent NIU in Liu that would, in any event, defeat the purposes sought to be achieved in Liu.

Accordingly, it is submitted that neither Liu nor Larson, nor any combination of them teach or suggest the invention of claim 22. Claims 23-27 include all of the limitations of claim 22 and are patentable over Liu or Larson, or any combination of them, for the same reasons as claim 22. Neither of Liu or Larson teaches or suggests a NIU having the functionality of the elements claimed in claims 22-27.
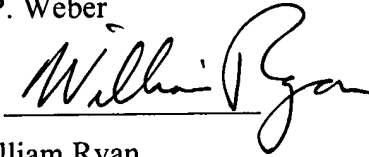
Conclusion

For the foregoing reasons, it is respectfully submitted that claims 22-27 as previously amended, overcome or avoid all bases for rejection and are allowable. It is requested that all claims be further examined, found allowable and passed to issue.

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